

### **Amendments to the Claims:**

This listing of Claims will replace all prior versions, and listings, of claims in the application:

1-26. (Cancelled)

27. (Currently Amended) A method of managing a state memory adapted for storing state information applicable in a message communication between communications units in a communications system, ~~characterized by~~ comprising the steps of:

- defining at least two message classes of the messages communicated between said communications units; and
- dividing said state memory into at least two memory portions, each memory portion being assigned for storing state information associated with a specific message class[.];
- and in that said state memory is arranged in a first communication unit and is allocated for storing state information used in message communication with a second communications unit.
- and in that said second communications unit requesting said first communications unit to allocate state memory space utilized for storing said state information used in said message communication with said second communications unit.

28. (Currently Amended) The method according to ~~the claims~~ claim 27, ~~characterized in that~~ wherein said defining step comprises defining said at least two message classes based on at least one of:

- a priority type of said communications messages;
  - an application protocol used when generating said communications messages;
- and
- a session type associated with communications messages.

29. (Currently Amended) The method according to ~~any of the claims~~ claim 27, ~~characterized in that wherein~~ said dividing step comprises allocating an equal memory size to said at least two memory portions.

30. (Currently Amended) The method according to any of the claims 27, ~~characterized in that wherein~~ said dividing step comprises allocating a first memory size to a first memory portion and a second different memory size to a second memory portion based on a first message class associated with said first memory portion and a second message class associated with said second memory portion.

31. (Currently Amended) The method according to ~~any of the claims~~ claim 27, ~~characterized by further comprising:~~

- determining a message class of a communications message; and
- storing state information generated based on said communications message in a memory portion associated with said determined message class.

32. (Currently Amended) The method according to claim 31, ~~characterized in that wherein~~ said message class determining step comprises determining said message class based on data found in said communications message.

33. (Currently Amended) The method according to claim 32, ~~characterized by further comprising~~ determining whether said state information is to be stored in said memory portion.

34. (Currently Amended) The method according to claim 33, ~~characterized in that wherein~~ said step of determining whether said state information is to be stored comprises retrieving storage priority information from a look-up list comprising storage command information for said message classes.

35. (Currently Amended) The method according to claim 34, ~~characterized in that~~ wherein said step of determining whether said state information is to be stored comprises:

- investigating whether similar state information is already stored in said memory portion; and
- storing said state information if no similar state information is already stored in said memory portion.

36. (Currently Amended) The method according to claim 35, ~~characterized in that~~ wherein said step of determining whether said state information is to be stored comprises:

- compressing said communications message;
- calculating a compression factor for said communications message; and
- determining whether said state information is to be stored in said memory portion based on said compression factor.

37. (Currently Amended) A unit for managing a state memory adapted for storing state information applicable in a message communication between communications units in a communications system, ~~characterized by~~ comprising:

- means for defining at least two message classes of the messages communicated between said communications units; and
  - means for dividing said state memory into at least two memory portions, each memory portion being assigned for storing state information associated with a specific message class; and
  - in that said defining means is configured for defining said at least two message classes based on at least one of:
    - a priority type of said communications messages;
    - an application protocol used when generating said communications messages;
- and
- a session type associated with communications messages;

- and in that said state memory is arranged in a first communication unit and is allocated for storing state information used in message communication with a second communications unit.

- and in that said second communications unit requesting said first communications unit to allocate state memory space utilized for storing said state information used in said message communication with said second communications unit.

38. (Currently Amended) A communications unit adapted for message communication with at least one external communications unit in a communications system, said communications unit comprising:

- a state memory adapted for storing state information applicable in said message communication; and

- a state memory managing unit, ~~characterized in that said state memory managing unit~~ that comprises:

- means for defining at least two message classes of the messages communicated between said communications unit and said at least one external communications unit; and

- means for dividing said state memory into at least two memory portions, each memory portion[] being assigned for storing state information associated with a specific message class; and

- in that said defining means is configured for defining said at least two message classes based on at least one of:

- a priority type of said communications messages;

- an application protocol used when generating said communications messages;

and

- a session type associated with communications messages;

- and in that said state memory is allocated for storing state information used in message communication with one of the at least one external communications unit;

- and in that said one external communications unit requesting said state memory managing unit to allocate state memory space utilized for storing said state information used in said message communication with said one external communications unit.

39. (Currently Amended) The unit according to claim 37, ~~characterized in that~~ wherein said dividing means is configured for dividing said state memory into at least two memory portions based on said message class definition from said defining means.

40. (Currently Amended) The unit according to claim 37, ~~characterized in that~~ wherein said managing unit and said state memory are arranged in ~~[[a]]~~ the first communication unit and said state memory is allocated for storing state information used in message communication with ~~[[a]]~~ the second communications unit.

41. (Canceled)

42. (Currently Amended) The unit according to ~~any of the claims~~ claim 37, ~~characterized in that~~ wherein said state information is used during compression and/or decompression of said communications messages.

43. (Currently Amended) The unit according to ~~any of the claims~~ claim 37, ~~characterized by comprising:~~

- a compressor; and
- a decompressor, wherein said state information is used by at least one of said compressor and said decompressor.

44. (Currently Amended) The unit according to ~~any of the claims~~ claim 37, ~~characterized in that~~ wherein said defining means is configured for defining said at least two message classes based on at least one of:

- a priority type of said communications messages;

- an application protocol used when generating said communications messages;  
and
- a session type associated with communications messages.

45. (Currently Amended) The unit according to ~~any of the claims~~ claim 37, ~~characterized in that wherein~~ said dividing means is configured for allocating an equal memory size to said at least two memory portions.

46. (Currently Amended) The unit according to ~~any of the claims~~ claim 37, ~~characterized in that w herein~~ said dividing means is configured for allocating a first memory size to a first memory portion and a second different memory size to a second memory portion.

47. (Currently Amended) The unit according to ~~any of the claims~~ claim 37, ~~characterized by further comprising:~~

- means for determining a message class of a communications message; and
- means for storing state information generated based on said communications message in a memory portion associated with said determined message class.

48. (Currently Amended) The unit according to claim 47, ~~characterized in that wherein~~ said determining means is configured for determining said message class based on data found in said communications message.

49. (Currently Amended) The unit according to claim 47, ~~characterized by further comprising~~ means for determining whether said state information is to be stored in said memory portion.

50. (Currently Amended) The unit according to claim 49, ~~characterized in that wherein~~ said determining means is configured for retrieving storage priority information from an associated look-up list comprising storage command information for said message

classes and for generating a storing command based on said storage priority information, said storing means being responsive to said storing command.

51. (Currently Amended) The unit according to claim 49, ~~characterized in that~~ wherein said determining means is configured for investigating whether similar state information is already stored in said memory portion and for generating a storing command if no similar state information is already stored in said memory portion, said storing means being responsive to said storing command.

52. (Currently Amended) The unit according to claim 49, ~~characterized in that~~ wherein said determining means is configured for receiving a compression factor obtained during compressing said communications message and for generating a storing command based on said compression factor, said storing means being responsive to said storing command.